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(56) Documents Cited

GB 2090570 A GB 0499444 A GB 0331302 A
GB 0254167 A WO 92/10379 A1 WO 90/13451 A1

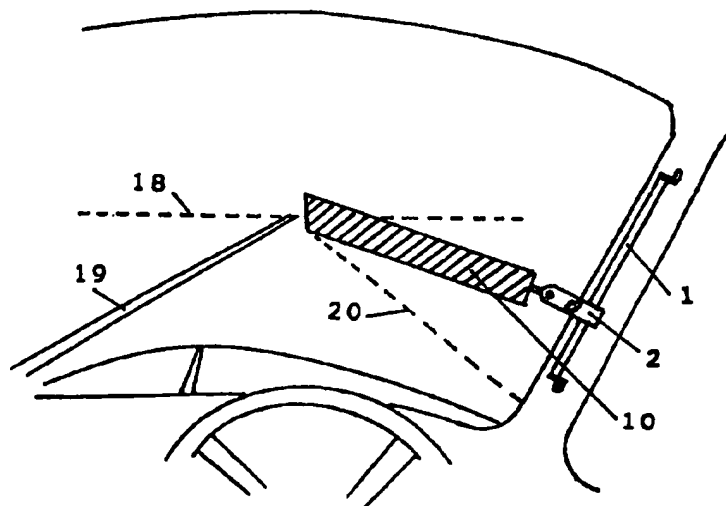
(58) Field of Search

UK CL (Edition N) B7J
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(54) Anti-dazzle shield

(57) A shield 10 which is transparent, but smoked or tinted, or a shielding-area embodying liquid crystals in-built in or attached to the vehicle's windscreen, is positioned in the line of vision between the eyes of the driver of a vehicle and the headlamps of an on-coming vehicle, thus cutting out and countering the dazzle of the headlamps, in the interest of safe driving at night. The shield may be attached to a rail 1 by a clamp 2 to adjust its position.

Fig 4



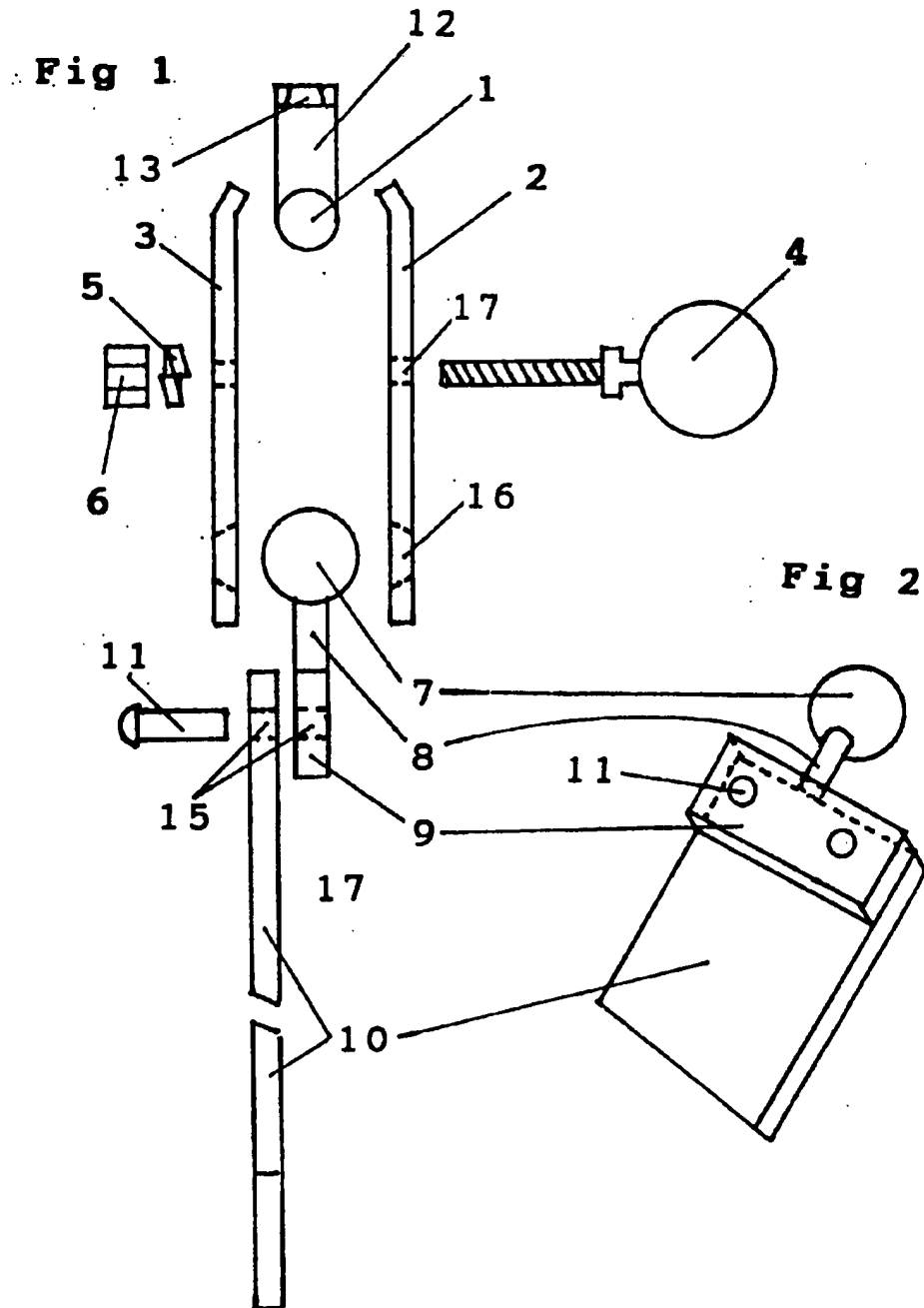


Fig 3

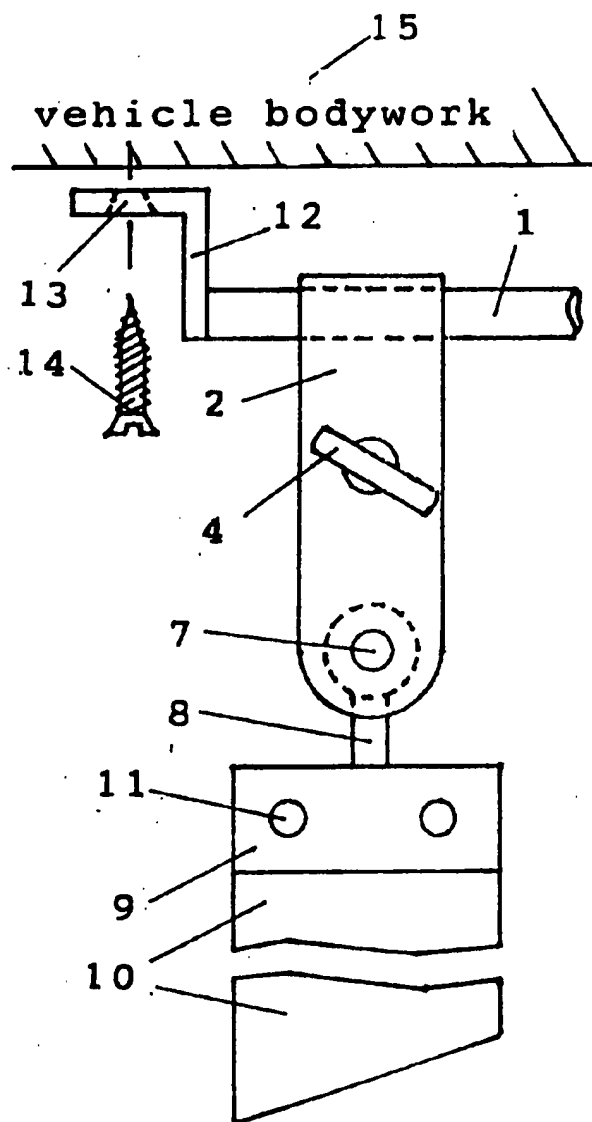
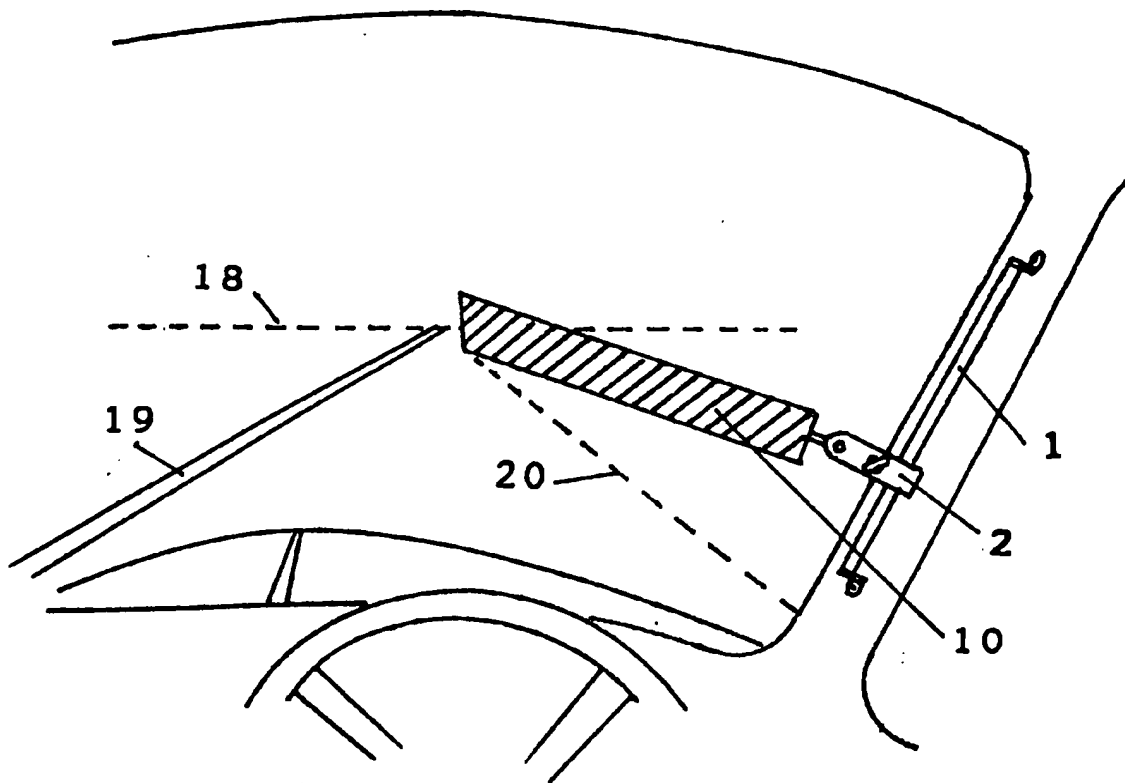


Fig 4



Title: LIGHT COUNTER

Field of Invention

This invention relates to an adjustable shield to mask and counter the dazzle from the headlamps of on-coming vehicles at night.

Background to the Invention

At night the dazzle from the headlamps of on-coming vehicles, even when dipped, creates a serious hazard. This takes three forms. First, it becomes extremely difficult for the driver to see the central road-markings in the glare. Secondly, especially in wet conditions, it becomes very difficult to see, or judge, where the left-hand-side edge of the road is. This is all the more hazardous on a minor or narrow road especially when it has a raised curb. There is a risk of the vehicle hitting this curb and being ricocheted into the path of on-coming traffic. Finally, with inability to see the central road-markings and the left-hand-side limit of the road, the driver of the vehicle is very likely to lose orientation and nerve, with possibly very serious consequences.

The Invention

According to the present invention there is provided a means by which a clear but 'smoked', or tinted, shield is positioned in the line of vision of the driver by a simple touch of the hand so that the shield masks and counters the offending light of the dazzling headlamps of the on-coming vehicles while keeping the headlamps themselves adequately visible, from the time that these appear in the distance, to the time that they pass by.

According to the present invention there is provided a vision improving device consisting of the three component parts; one fixed and two moveable.

The first and fixed part embodies a rail permanently fitted to the inside of the column between the dash-board and the roof of the vehicle, on the driver's side.

The second part consists of a double-ended clamp means, one end of which clasps the fixed rail while the other end forms the 'socket' for a ball-and-socket arrangement. This clamp consists of two identical strips, held together by a shouldered thumb-screw threaded from one side through holes in the middle part of the strips into a spring-washer and nut on the other side.

The third part consists of a ball connected to a spindle which, in turn, is connected to a plate onto which is rivetted one end of the 'smoked' or tinted clear plastic

shield.

A specific embodiment of the invention is now described below with reference to the accompanying drawings in which:-

Fig 1 shows the components in an 'exploded' form.

Fig 2 illustrates components 7,8,9,10 and 11 in assembled form in order to clarify the shape and position of component 8.

Fig 3 shows the device in a partially assembled form.

Fig 4 shows the device fitted to the vehicle body column on the driver's side with the masking shield positioned in line of vision of the driver.

Detailed Description of Drawings

The device is shown in an 'exploded' form in Fig 1 and Fig2.

The fixed component consists of a rail 1, fitted with brackets 12 at each end. Each bracket has a bored hole 13 to enable the rail to be fixed to the vehicle-body by means of a self-tapping screw 14 (Fig.3).

The clamping means consists of two identical strips 2 and 3, shouldered thumb-screw 4, spring-washer 5, and nut 6. Each strip is slightly bent along one edge as shown in Fig1. In the middle of each strip there is bored a hole 17 to enable to pass freely the shaft of the shouldered thumb-screw 4. At the other end of each strip is bored a conical-sectioned hole 16 large enough to allow a segment of the ball 7 to rest within it. The two holes 16 'face' each other as shown in Fig 1 so that when brought towards each other, form a 'socket' for the ball 7.

The glare-counteracting shield component consists of the ball 7, attached to spindle 8, which, in turn, is attached to plate 9. Plate 9 has two holes 15 to enable it to be rivetted 11 to the masking shield 10.

Fig 3 shows rail 1 and clamp consisting of components 2,3,4 5 and 6, assembled with one end of clamp clasping the ball 7 of the light counter shield 7,8,9 and 10. Self-tapping screw 14 in Fig.3 fixes each end of rail 1 to the vehicle bodywork 15. In this case the vehicle bodywork member used is the offside window column between the dash-board and the roof of the vehicle.

Fig 4, shows the device fitted inside the vehicle and shield 10 positioned in relation to the eye-level 18 and view-point of the driver. With this adjustment the headlamps will be masked by the shield from the time these appear on the line 18 to the time that they pass the vehicle. With the glare completely eliminated, view of the

central road-markings 20 and the left-hand-side curb 19 are clearly visible.

OPERATION OF INVENTION

To bring the device into operation, the thumb-screw 1 is loosened just enough to enable the 'socket'-end of the clamp to enclose the ball 7 in its grasp and, at the same time, to enable the other end of the clamp to clasp the fixed rail. Just before the thumb-screw is fully tightened, the position of contact of the clamp on the rail can be chosen by sliding the clamp up or down to suit the eye-level of the driver and, also, using the ball-and-socket means the shield can be positioned in the line of vision of the driver in order for the shield to mask out and counter the light of the dazzling head-lamps of the on-coming vehicles. After the above adjustments are completed, the thumb-screw can be fully tightened to prevent any jerking of the shield out of position due to the vehicle's motion. The degree of 'smoking' or tinting of the shield allows the dazzle of the head-lamps to be eliminated but the outline of the head-lamps is still clearly visible in order for the driver to accurately judge the distance between his/her vehicle and the path of on-coming vehicles. During day-time driving the shield can be tucked away to lie parallel with the column and out of the driver's forward vision.

CLAIMS

1. This invention relates to an arrangement by which a shield made of a transparent but 'smoked' or tinted material or a liquid-crystals-embodying 'shield-area' within the windscreen, is positioned between the eyes of the driver and the path of light from the head-lamps of on-coming vehicles, thus countering the offending dazzle..
2. A shield as claimed in Claim 1 using a fixed rail fitted to the vehicle column, a double-ended clamp and a smoked masking component 10 as described in this specification.
3. A shield as claimed in Claim 1 and Claim 2 consisting of an appropriately shaped liquid-crystals bearing area incorporated within the structure of the vehicle's windscreen and capable of being darkened or tinted by light or electronically and this shield-area being positioned on the windscreen to enable it to mask the light from the head-lamps of on-coming vehicles - area covered by component 10 in Fig4.
4. A shield as claimed in Claim 1, Claim 2, and Claim 3 wherein any other form of linkage is used instead of the rail and clamp, for example a flexible cord as used in electric table lamps.
5. A shield as claimed in Claim 1, Claim 2, Claim 3 and Claim 4 fitted to the vehicle-body in any other location than the column as shown in Fig 4, such as the top of the dash-board, ceiling of the vehicle, to the sun-visor, to the rear-view mirror or any part of the windscreen itself.
6. A shield as claimed in Claim 1, Claim 2, Claim 3, Claim 4 and Claim 5 made wholly or partly of metal, metal alloys, rubber, wood or any other synthetic materials.
7. A shield as claimed in Claim 1, Claim 2, Claim 3, Claim 4, Claim 5 and Claim 6 having any shape or size of its component 10.

Patents Act 1977 Examiner's report to the Comptroller under Section 17 (The Search report)	5	Application number GB 9425951.2
Relevant Technical Fields (i) UK Cl (Ed.N) B7J (ii) Int Cl (Ed.6) B60J 3/02	<div data-bbox="1040 214 1300 273"> Search Examiner COLIN THOMPSON </div> <div data-bbox="1040 331 1395 390"> Date of completion of Search 2 MARCH 1995 </div> <div data-bbox="1040 417 1422 548"> Documents considered relevant following a search in respect of Claims :- 1-7 </div>	
Databases (see below) (i) UK Patent Office collections of GB, EP, WO and US patent specifications. (ii)		

Categories of documents

X: Document indicating lack of novelty or of inventive step.	P: Document published on or after the declared priority date but before the filing date of the present application.
Y: Document indicating lack of inventive step if combined with one or more other documents of the same category.	E: Patent document published on or after, but with priority date earlier than, the filing date of the present application.
A: Document indicating technological background and/or state of the art.	&: Member of the same patent family; corresponding document.

Category	Identity of document and relevant passages	Relevant to claim(s)
X	GB 2090570 A (HAARDT) see especially Page 2 lines 71 to 75	1, 2, 4, 5, 6, 7
X	GB 499444 A (RUSSELL)	1, 2, 5, 6, 7
X	GB 331302 A (HURLOCK)	1, 4, 5, 6, 7
X	GB 254167 A (JOHNSON) see especially Figure 7	1, 2, 6, 7,
X	WO 92/10379 A1 (GERMAIN)	1, 2, 6, 7
X	WO 90/13451 A1 (FORNARA)	1, 3, 5, 7

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